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Mr. Price, Mr. Fraley, Mr. H. J. Williams, Mr. Hopper and Judge Sharswood were appointed the committee.

On motion of Mr. Lesley, the Secretaries were authorized to complete the set of the Society's Proceedings and Transactions in the Library of the University of Pennsylvania, receiving in return such duplicates as are in that Library.

The Secretaries were instructed to prepare a reply to the communication of Herr C. Kesselmeyer, transmitted to this Society by Mr. Chas. H. Meyer, German Consul, and member of the Centennial Commission of the German Empire (224 S. Fourth street, Philadelphia), stating that the regulations of the Society will not admit of a compliance with his request.

And the meeting was adjourned.

Stated Meeting, December 17th, 1875.

Present, 10 members.

Vice-President, Mr. FRALEY, in the Chair.

Donations for the library were received from M. Donisotte of Turin; the Royal Prussian and Belgian Academies; Revue Politique; London Nature; Boston Natural History Society; Cambridge Museum; Franklin Institute; Medical News, and the U. S. Department of the Interior.

The committee on the paper of Drs. Le Conte and Horn, entitled "On the Rhyncophora of North America," reported in favor of its publication as a separate Volume (XV, No. 96, of the Proceedings). On motion, it was so ordered, with an appropriation of fifty dollars for illustrations; the Secretary being authorized to commence the minutes of 1876 as No. 97, Vol. XVI.

The Committee to which was referred the Memoir on the Rhyncophora of N. America by Drs. LeConte and Horn, report that they have examined the MSS. and find the following facts.

The memoir consists of about five hundred MSS., equal to about four hundred printed pages, and require a few simple wood cuts in the text, costing about twenty-five dollars, and one lithograph plate costing about twenty-five dollars. Dr. Horn proposes to draw on the wood himself.

The subject is of great scientific interest, being a new classification of eleven families of Coleopterous insects in three series, upon the basis of a wider and closer study of all their features than has yet been made ; and after personal inspection of the cabinets of Europe. The families of insects described belong to the class of weevils in the language of agriculture.

We recommend that the memoir be printed separately as No. 95 and Vol. XV of the Proceedings, with the necessary appropriation of fifty dollars for illustrations ; and that the Secretaries be authorized to commence the publication of the Proceedings of 1876 with No. 96, page 1, Vol. XVI.

Dr. Brinton communicated the results of his correspondence with Dr. Valentini, of Mexico, and read a statement of Dr. Valentini's theory of the Calendar Stone, as a votive tablet to the Sun God, deducing important historical data therefrom. Dr. Brinton reported that the MSS. had been sent to him, and moved the appointment of a committee to report whether it deserved publication. Dr. Brinton, Prof. Kendall and Mr. Lesley were appointed the committee.

The author, in the introductory part of his memoir refutes the theory prevalent on the meaning of the Mexican Calendar Stone. This theory was advanced by Don Leon y Gama, in the year 1490, and may be condensed into the following :

The stone is a sun dial, and has the additional function of showing :

1. The two transits of the sun by the zenith of the City of Mexico.
2. The two equinoctial days.
3. The day of the Summer Solstice.

The way of ascertaining these days has been to set above the stone an apparatus, constructed of eight vertical poles, whose points were connected by threads ; and the shadows of these threads, on the above-said days, would fall upon the surface of the dial, and cut the figure of the respective hieroglyphics and thus determine the day of the celestial phenomenon.

The day of the Winter Solstice is supposed to be sculptured upon another stone of the same kind, which is still to be discovered.

The author shows that the stone lacks all the requirements necessary for representing a sun dial ; he doubts, whether the Mexicans had been acquainted with the existence of the named astronomical days ; he further proves that the two hieroglyphics, or the pretended equinoctial, and the two for the pretended Transit days, simply refer to the four tablets that represent the four destructions of the world, and that they designate the days on which the Mexicans were accustomed to celebrate a feast in order to commemorate those pre-historic events ; and, finally, that the day for the pretended Summer Solstice turns out to be the hieroglyphic for the

five Mexican supplementary days, called the *nemotemi* ($5 + 360$ days). Hence, the premises of this theory being incorrect, the conclusion must be incorrect also.

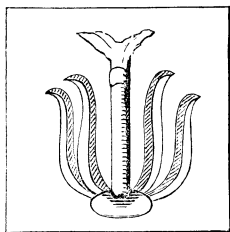
The theory of the author is the following :

The Mexican Calendar Stone is a votive monument dedicated to the Sun God in the year XIII Acetl. As in the series of the fifty-two years, which form a Mexican cycle, the year of the name XIII Acetl was the last one, the people looked at it with fright. For they believed that the Sun God, at the lapse of each cycle would destroy the world, and, therefore, the happy entrance of a new cycle was considered by the people to be a special indication of his mercy. The motives of the dedication thus explained, the author transcribes the year XIII Acetl, which is sculptured in a tablet at the top of the stone, into that of 1479 of our era, and gives the reasons for doing so. He then proceeds to ascertain the person to whom the stone was dedicated, and from the central position of an image, from its ornaments, and from a hieroglyphic sculptured on its frontlet, he comes to the conclusion that this image is that of the sun god, *Atoniatuh*.

These preliminary questions settled, the author passes to the minute description and final definition of all those hieroglyphics which in successive and concentric zones surround the image of *Atoniatuh*. He says, as the intention was to glorify the Sun God, the great giver of time, the artist chose to sculpture in the spaces of the concentric zones all those symbols by which the Mexicans used to represent time and its division. In the immediate vicinity of the image the artist placed *the zone of the Aeons*, in the form of four tablets upon which the four destructions of the world, the most ancient deeds of the Sun God, are found to be sculptured. Next comes *the zone of the twenty days*, which constitute a Mexican month. Each of these twenty days has its special image. Then comes *the zone of the two hundred and sixty Lunar days*, divided into weeks, each of these being subdivided into five days; and around this zone lies *that of the one hundred Solar days*; for, according to their peculiar way of computing time the circle of the ancient Mexican year was split into those portions. *The five days wanting* to make their year a more correct one will be seen to be intercalated within the space between the tablets of the two last destructions of the world. *The sixteen hours* of the Mexican day are represented by gnomons, which at proportionate distances intersect the zones. The last zone, girdling the whole monument is occupied by the symbols for the cycle. Thus, every kind of symbols representing division of time will be found to be sculptured on the monument and brought into symmetrical relation to the image of him whom they considered to be the primeval origin of all time.

Special attention has been paid by the author to the *Zone of the Cycles*, which he calls the *Chronological Zone*. It is divided into twenty-four tablets. Each of these is like the other and contains the picture which was employed for designating the lapse of a cycle of fifty-two years. It

shows a shaft, vertically placed upon a disk, from which four flames of smoke and fire curl up. By this picture was expressed the solemn act of re-kindling the sacred fire ; a ceremony which took place before the assembly of the whole people in the last hour of the cyclical year. The identity of this picture, sculptured, with that painted in the Mexican Codices is exemplified by copies taken from the large collection of Lord Kingsborough, and its correct interpretation is warranted by referring to the authentic text. The author



now says : That, if the stone evidently was consecrated in the year 1479 : if further, the tablet containing the sign for this year not only is fixed at the top of the monument, but also, within this cycle-zone and at its top : and finally, if two large pointers are seen to lead the two halves of this zone toward this same tablet of 1479—the artist's intention has been to give to understand that the Mexicans, in the year 1479, had counted the sum of twenty-four cycles elapsed, or twenty-four festivals celebrated in honor of their Sun god. Twenty-four cycles represent the sum of one thousand two hundred and forty-eight years. This sum subtracted from the year 1479 leads back to a year of our era equivalent to 231 A.D. Hence, the stone not only shows division of time, generally, but also a definite quantity of time, which the benignant Deity had granted to his people. To find a chronological record of this kind sculptured upon this monument appears to be in full concordance with its votive character.

The author is of the opinion, that by the year 231 A.D. the date has been expressed from which the civilized races of Mexico and Yucatan began to reckon a new political or religious era. His computations of the chronologies written by Satlilxodritl, Veytia and Chimalpopoca, and of that of the Maya-people, have given him an almost identical result. The variations are : 231 A.D., 242 A.D., and 245 A.D.

Dates prior to these, and mentioned in Mexican history, can now be correctly determined. Thus, the year X Calli, that of an universal eclipse of the Sun, is equivalent to our year 137 A.D. = Lapse of the great Sothic period in the Orient, and coinciding with the Mexican date of the departure of the civilizing races from the distant *Tulapan*. The year 1 Tecpatl proves to be equivalent to 29 B. Cr. = Introduction of the Julian calendar in Asia Minor by Cæsar Octavianus, and it is called by the Mexicans : the meeting of the Astrologers in Huehuetlapallan for the purpose of correcting the calendar.

These latter suggestions do not enter into the memoir, but will be more extensively treated in a later paper, if that of the Mexican Calendar Stone should meet with a favorable reception.

Mr. Walter presented to the library of the Society, as a gift from Mr. John McArthur, Jr., architect of the New

Public Buildings of Philadelphia, several photographs of ornamental portions of the work, remarking that he considers the style of ornamentation inaugurated in these buildings, as surpassing in design and modeling, any esthetic embellishments in architecture ever before attempted in the United States. He called the attention of the members especially to a head of the late Hon. Horace Binney sculptured in high relief on the keystone of the arch-way leading to the Judiciary, remarking that it was modeled from a photograph of Mr. Binney taken about a year before his death, and furnished for the occasion, by his daughter, Mrs. Montgomery.

Allegorical faces in high relief, representing Remorse, Sympathy, Knowledge, Commerce and Liberty; also the head of a buffalo, the head of a lioness, and other devices adorn the various keystones, no two being alike, and each representing an apparent idea or association.

As the ornate portions of the buildings are modeled and photographed, the Society will be furnished with copies for the library.

Mr. Blazius read a paper On the influence of Air on Life, and the connection of the westward growth of cities with modern meteorology. A discussion ensued in which Mr. Price, Mr. Walter, Mr. Lesley, Mr. Fraley, Mr. Briggs and Dr. Horn took part.

Pending nomination 791 was read.

The stated business of the evening was postponed on account of the continuous illness of the Treasurer.

The Committee on Judge Strong's address reported that it should be delivered on the 5th of January next, at 8 o'clock P. M., in Musical Fund Hall.

And the meeting was adjourned.